

# Epistemic Styles\*

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## Abstract

Epistemic agents interact with evidence in different ways. This can cause trouble for mutual understanding and for our ability to rationally engage with others. Indeed, it can compromise democratic practices of deliberation. This paper provides an account that explains the root of this phenomenon. I argue that epistemic agents take up ways of interacting with evidence that express unified sets of epistemic values, preferences, goals, and interests. I call these ways of interacting with evidence *epistemic styles*. The paper introduces the notion of epistemic styles and develops a systematic account of their nature. It then discusses the implications of epistemic styles for central questions in epistemology, in particular, for issues surrounding rational engagement.

## 1 Introduction

People interact with evidence in different ways. Evidence that persuades you might leave others cold or lead them to strengthen their views. What indicates nefarious intentions to one person suggests bumbling incompetence to another. Where one person briskly rules out alternative explanations, another keeps them alive, refusing to make up their mind.

This variation in ways of interacting with evidence compromises our ability to understand one another. And it poses problems for rational engagement, endangering democratic practices of collective deliberation. This makes it important to address why people interact with evidence in different ways.

In this paper, I provide a neglected ingredient behind how people interact with evidence, one which plays a crucial role in explaining systematic differences in modes of epistemic engagement: *epistemic style*. Though the notion of epistemic style has remained under-theorized, the phenomenon is familiar. It is exemplified in the charge that American politics has come to be dominated by the “paranoid style,” which expresses “heated exaggeration, suspiciousness, and conspiratorial fantasy” (Hofstadter 2012). It is also displayed in the distinctive ways of interacting with evidence

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that some intellectual communities—such as Black feminists or the self-described rationalists—seek to articulate and inculcate.

I analyze epistemic styles as unified ways of interacting with evidence which express a cohesive set of epistemic parameters, and which agents can put on and take off. I argue that differences in epistemic style are at play in paradigmatic cases of systematic differences in how people interact with evidence.

This goes against standard views in the literature, which tend to account for such differences in two ways: either by appealing to epistemic virtues, vices or other deep character traits (in *virtue-theoretic approaches*), or by appealing to the effect of irrelevant contextual factors (according to *situationists*). Unlike virtue-theoretic approaches, my view does not impute deep, long-standing character traits to agents to explain their ways of interacting with evidence. For this reason, the view avoids concerns about the existence and explanatory of such robust traits in ordinary agents. At the same time, unlike situationist approaches, my view does not portray agents as passive conduits for their context: their interactions with evidence remain the result of epistemic parameters. For this reason, my account helps us address the long-standing debate between virtue theorists and situationists.

Further, this account of the ways in which agents interact with evidence provides us with tools for understanding others *qua* epistemic agents and for designing more effective strategies for rational engagement. And it functions as a prolegomenon to a novel approach to central questions about how to epistemically assess interactions with evidence. This is because we can only begin to properly assess our interactions with evidence once we are clear on their roots.

The plan for the paper is as follows. In §2, I articulate and motivate the central question of the paper and key desiderata for a good answer. In doing so, I argue that existing approaches to how people interact with evidence are insufficient. In §3, I develop my analysis of epistemic styles. In §4, I employ the notion of epistemic styles to put forward my explanation of why epistemic agents vary in how they interact with evidence, and show how this explanation meets the desiderata outlined in §2. Finally, in §5, I sketch implications of epistemic styles for epistemology.

## 2 The Variation Question

Different people—and the same person in different contexts—interact with evidence in different ways. They update their attitudes differently in light of the same evidence, differ in the beliefs that they notice evidence to bear on, explore different explanations for evidence, assess sources differently, and so on. And they inquire differently in the same epistemic situation, differing in how they gather evidence, ask questions, and generate explanations. This raises the following question:

**The Variation Question:** Why is there inter- and intra-personal variation in ways of interacting with evidence?

This is a descriptive question: it asks for an explanation of people's interactions with evidence. We can offer such an explanation without presupposing that those interactions are rational. I will, in my discussion, remain as neutral as possible on which

ways of interacting with evidence are rational.<sup>1</sup> At the same time, the answer to the Variation Question has normative implications. Properly understanding what is going on at a cognitive level when people interact with evidence matters for assessing those interactions. I will discuss normative implications of my answer to the Variation Question at the end of this paper.

A central reason to be interested in the Variation Question comes from the social and political significance of the fact that people interact with evidence in different ways. First, this diversity makes trouble for mutual understanding. Encountering a person who interacts with evidence in ways that radically diverge from our own can be disconcerting, generating a sense of distance and alienation. Why would someone act *like that*? What could they possibly be thinking? It can easily lead to thinking that it is not worth engaging. And, when we engage less with others, the chances for understanding diminish. The result is a vicious loop where the prospects for mutual understanding continually thin down, and where mutual alienation and distrust continually poison the social waters.

This has important political consequences. As political scientist Michael Morrell notes, without mutual understanding,

it is highly unlikely that citizens will demonstrate the toleration, mutual respect, reciprocity, and openness toward others vital for deliberative democracy to fulfil its promise of equal consideration that is central to giving collective decisions their legitimacy. (Morrell 2010, 114–5)

Variation in ways of interacting with evidence poses additional problems for rational engagement. Without knowing how an agent will respond to evidence, how do you select evidence that will help you productively engage? Without a realistic shot at rationally engaging, the scope for joint deliberation becomes highly limited. This is a problem for democracy, which normatively relies on rationally persuading others and (on popular accounts) on collective deliberation (Dryzek 2002, Estlund 2009, Landemore 2017).

These problems motivate the need for an answer to the Variation Question. And they constrain the shape that such an answer should take. We want an account that can help us address some of the issues I have just outlined. Such an account should meet the following two desiderata:

**Prediction Desideratum:** To put us in a position to predict how others will interact with a range of evidence.

**Understanding Desideratum:** To put us in a position to understand others' interactions with evidence.

Ideally, an answer to the Variation Question should help us predict how others will interact with evidence so that we can better select strategies for rational engagement. And it should help us make rational sense of why others respond in the ways they do.

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1. There is a substantial literature on this question, more specifically, on which doxastic adjustments in response to evidence are rational. On the side of 'there is precisely one rational adjustment' (the uniqueness thesis), see White 2013, Dogramaci and Horowitz 2016, Schultheis 2018. On the permissivist side, according to which there can be more than one rational response to evidence, see Douven 2009, Kelly 2013, Willard-Kyle 2017, Callahan forthcoming.

These are only two of the desiderata that an answer to the Variation Question should meet. To outline a few more, I will now consider candidate answers to the question and why they fail.

An initially attractive idea is that the answer to the Variation Question is simple: modulo performance mistakes, people interact with evidence differently because they have different beliefs about the topic under discussion. If two epistemic agents interact with evidence differently, it is either because some of their beliefs about the topic at hand differ or because at least one of them made a reasoning mistake.

This view follows from two popular assumptions: (a) there is only one way to reason rationally once we fix beliefs and evidence (White 2013, Dogramaci and Horowitz 2016, Schultheis 2018) and (b) modulo performance mistakes, all epistemic agents reason rationally (e.g. Davidson 1985, Dennett 1981, Lewis 1974, Stalnaker 1984). It also fits with a natural construal of Bayesianism about human reasoning (Clark 2013, Friston 2012, Oaksford et al. 2007, Tenenbaum et al. 2011). Bayesians think that (modulo performance mistakes) everyone reasons according to Bayes theorem. If we fix beliefs and evidence, then there is a unique response to evidence: the one that Bayes' theorem yields.<sup>2</sup>

Indeed, there are many cases where differences in beliefs about the topic or performance mistakes fully explain differences in interactions with evidence. For example, if two people look at a restaurant bill and come to different beliefs about how to split it, this is likely the result of a performance mistake or of different beliefs about who should pay for what. But not all cases fit this simple model.

My focus is on explaining what is going on in cases that do not fit this model. Such cases are commonplace. For one, subjects often set different *evidential thresholds* for revising their beliefs: whereas one person might change their mind on  $p$  given very little counter-evidence, another might require a large quantity of counter-evidence to do so. As an example, gritty people set high evidential thresholds for abandoning the belief that they are likely to succeed (Paul and Morton 2018), meaning that it takes a lot of good evidence to persuade them that they are not likely to succeed. Defeatists do the opposite, taking even the smallest setback to show that they are doomed.

More generally, two agents starting from the same beliefs about the topic under discussion and the same evidence might nonetheless set different evidential thresholds on the same topics.<sup>3</sup> The gritty person and the defeatist might both start with the same belief that they are likely to succeed, and the same beliefs about what factors contribute to success, and so on, and still set different evidential thresholds.<sup>4</sup> As a

2. This requires claiming that the likelihood function is encoded in beliefs. If one rejects this assumption, the view I will put forward is compatible with Bayesianism. To anticipate, Bayesians can see agents' epistemic styles as fixing likelihood functions.

3. I am not making any claims about the epistemic permissibility of setting different evidential thresholds.

4. One might object that differences in evidential thresholds must ultimately reduce either to performance mistakes or to differences in belief. Indeed, Paul and Morton (2018) hold that evidential policies are "implicit attitudes or guidelines" (Paul and Morton 2018, 191), which one can plausibly construe as beliefs. However, even if epistemic parameter settings are all ultimately reducible to beliefs—an open question—the view we end up with by accommodating epistemic parameter settings in our model is very different from the naive view above. The view now is now that differences in interactions with evidence reduce to differences in (a) beliefs on the topic at hand, (b) performance mistakes, and (c) (probably implicit) beliefs about how to interact with evidence. Further, more research is needed to determine whether evidential threshold settings are implemented or determined beliefs: this would require, for example, determining

consequence, one of them might revise beliefs that the other does not in the light of the same evidence. In that respect, at least, they will interact with the evidence differently.

To accommodate the significance of differences in evidential thresholds, any answer to the Variation Question should meet the following desideratum:

**Epistemic Parameters Desideratum:** To account for the fact that at least some differences in interactions with evidence are the result of differences in epistemic parameter settings.

A natural suggestion in light of the discussion above is that we can explain differences in how individuals interact with evidence in terms of a specific epistemic parameter: evidential thresholds across one's belief set (one's evidential policy).

However, there are causally relevant epistemic parameters beyond evidential policies. For example, agents differ in how much they value getting truth over avoiding falsehood (James 1979): if given the choice between acquiring 101 true beliefs and 100 false beliefs or acquiring no new beliefs, some agents will prefer the former and some the latter. People weigh theoretical values differently: the Quinean with a preference for desert landscapes will opt for a theory with few postulates, whereas the maximalist will prefer a complex theory that fits more data. As a result, they will come to different beliefs based on the same evidence. Further, agents find the same evidence compelling to different extents. For example, some people are unlikely to change their mind based on first-hand testimony, but find statistical surveys highly persuasive, whereas others have the opposite preference.

On top of this, it is unlikely that a single parameter can explain differences in all behavior under the "interacting with evidence" umbrella. Evidential thresholds cannot. By themselves, they cannot explain differences in evidence-gathering, in alternative explanations generated, or in questions asked about the evidence. In fact, appealing to evidential thresholds does not yield a complete explanation even in the cases in which theorists appeal to them. For example, gritty people do not just require more evidence to change their minds on their chances of success. In addition to that, they often also robustly explain away counter-evidence to those beliefs; shape their trust policies in ways that allow them to devalue the testimony of people who do not believe in them; and focus their attention on signs of success. These aspects of behavior are not explained by evidential threshold settings.

To capture these facts, an answer to the Variation Question must meet the following desideratum:

**Multi-Dimensionality Desideratum:** To account for variations in multiple dimensions of interacting with evidence and multiple epistemic parameters.

A full answer to the Variation Question requires accommodating variation in complex sets of epistemic parameters, and how they affect a broad range of behavior.

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whether one's evidential threshold settings are sensitive to evidence in a belief-like way and interact with desires in a belief-like way. We are better off focusing on the role of epistemic parameter settings and their role in how agents interact with evidence, and leaving the question of implementation for later.

This might suggest appealing to differences in deep epistemic character—in epistemic virtues, vices, and global character traits (Zagzebski 1996) (e.g. open-mindedness, intellectual humility, arrogance)—to explain why people interact with evidence differently. Such an account seems promising for meeting the Multi-Dimensionality Desideratum because that global character traits are multi-track dispositions (Ryle 1949): they correspond to more than one pair of stimulus condition and manifestation. For this reason, they are well-placed to explain a wide range of epistemic behavior and encompass settings in multiple epistemic parameters.

However, such virtue-theoretic approaches face a substantive empirical challenge: the challenge from situationism (Harman 1999, Doris 2002, Alfano 2013, Fairweather and Alfano 2017). Having a global character trait requires robustly manifesting that trait across a wide range of conditions, not only in a narrow, hyper-specific range of conditions. For example, honesty requires reliably behaving in honest ways, not just behaving honestly when it's sunny and you've had a nice meal. But results in social psychology suggest that people do not robustly behave in trait-manifesting ways. Instead, normatively irrelevant situational influences—e.g. moderate social pressure, mood, framing—have substantial effects on behavior. Global character traits (which, by definition, are robustly manifested across a wide range of conditions) are rare. If the situationist is right, global character traits are not well-suited for addressing typical cases of variation in how people interact with evidence. More generally, situationism indicates that we need to leave space for the effect of contextual factors on epistemic behavior:

**Context-Dependence Desideratum:** To accommodate the systematic dependence of our ways of interacting with evidence on context.

We need to leave space for the fact that we interact with evidence differently in different social contexts (e.g. in a philosophy seminar vs. at a bar with non-academic friends). We should also accommodate our tendency to reason in different ways when in a good mood and when feeling down (in exploratory vs. critical ways, respectively; Schaller and Cialdini (1990)). Similarly, we should make space for the fact that taking up accuracy goals as opposed to wanting to defend one's cherished beliefs affects the ways in which we interact with evidence (Kunda 1990).

The discussion so far points to a gap in our theorizing. Existing theoretical tools do not suffice to explain important instances of variation in interactions with evidence. In the rest of the paper, I will address this gap by appealing to epistemic styles.

### 3 Epistemic Styles

#### 3.1 Style: an overview

The notion of style has its primary home in aesthetics.<sup>5</sup> In one canonical use of the term, a style is a unified way of doing things: of dressing, gesturing, speaking, moving, and so on. Taking up a style is a matter of being disposed to do things in those ways.

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5. For classic discussions, see Sontag 1966, Danto 1981, Baxandall 1985, Robinson 1985, Wollheim 1987.

This is a descriptive notion of style, in that, on this notion of style, not all styles are (aesthetically) good. You can have a style without being stylish: you just need to have some unified way of doing things.<sup>6</sup>

Style shows up across a wide range of activities and domains: a flamboyant style can show up in flashy, glittery outfits, in pronounced facial expressions, and in throwing exuberant parties. At the same time, style is manifested in different ways across activities and domains. A flamboyant style will result in different outfits at a dance party and at a picnic, at least if one is sensitive to social norms.

When we talk of someone having a style, we mean that they do a number of things in the same way. As Arthur Danto notes, the notion of consistency at play here is not “formal” consistency:

It is the consistency rather of the sort we invoke when we say that a rug does not fit with the other furnishings of the room, or a dish does not fit with the structure of a meal, or a man does not fit with his own crowd (Danto 1981, 207).

We cannot describe a style in a purely formal way, by listing abstract rules for combining different constituents (e.g. different items of clothing). Instead, the orthodox view is that what makes it the case that different actions are in the same style is that they are all done in ways that express (aspects of) the same psychological profile (Robinson 1985, Wollheim 1987). Behavior that is in a certain style shows or makes manifest (Green 2016) aspects of a unified psychological profile that the agent inhabits at the time. Actions such as dressing for a picnic or for a party, talking in a certain tone of voice, characteristic gestures are in the same style in virtue of expressing the same psychological profile.

Style is not fixed. People can and do shift styles, both over the course of their lives and across contexts. One’s style does not express deep character, conceived as a set of stable, long-standing traits. Having a style only requires having dispositions that are manifested in the contexts in which the person adopts the style, and inhabiting the corresponding psychological profile in those contexts. For example, someone who has a flamboyant style in their social but not professional life has the corresponding psychological features—a preference for the dramatic, a tendency for effusive displays of emotion, and a taste for boundary-pushing—in social contexts, but does not have them in professional contexts.<sup>7</sup>

For my purposes, the take-away points about style from the aesthetics literature are the following. Styles are ways of doing things, and taking up a style is a matter of having dispositions to do things in those ways. Styles are unified, with their unity deriving from the fact that they express aspects of the same psychological profile. Consequently, taking up a style involves contextually inhabiting that psychological profile.

Though the notion of style has its home in aesthetics, it has been put to use in explanatory projects in other domains. For example, linguists and philosophers of

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6. As Riggle (2015) notes, there is also an evaluative notion of style on which style is an achievement. It is in this evaluative sense that some people are stylish and some people are not.

7. For more on how personality is affected by context, see Goffman 1978 on social roles, Rovane 2019 on ways of reasoning, Nguyen 2020b on modes of agency, and Morton 2014 on code-switching.



language have theorized at length about styles of linguistic expression and their social significance (Eckert 1989, Tannen et al. 2005), and feminist theorists have long encouraged us to attend to distinctive gendered “ways of knowing” (Belenky et al. 1986, Collins 2002, Gilligan 1993, Rooney 1991). Closer to my project here, philosophers of mind and action have provided detailed accounts of style in intuitive cognition and action. Elisabeth Camp articulates *perspectives* as styles of intuitive thinking: packages of intuitive dispositions to notice, explain, and evaluate the world around us (Camp 2006, Camp 2013, Camp 2019, Camp 2020). And Thi Nguyen (2020b) has developed the notion of *modes* (or styles) of agency, focused ways of being an epistemic agent that agents adopt in context-dependent ways.

These projects illustrate the explanatory power of the notion of style. For example, thinking about perspectives helps us understand the cognitive significance of linguistic devices such as slurs (Camp 2013) and metaphors (Camp 2006), the role of models in scientific inquiry (Camp 2020), and the structure of testimony (Fraser 2021). Modes of agency help explain our engagement with games and make-believe, how we shift values in the context of different activities, and the development of agency over time (Nguyen 2020b). Such explanations also raise new normative questions about which perspectives and modes of agency to adopt. Similarly, I will show that epistemic styles help us better understand a wide range of epistemic behavior and raise new normative questions.

### 3.2 Style in an epistemic key

Applying the points in the last sub-section to the epistemic domain, here is my definition of epistemic style:

**Epistemic Style:** An epistemic style is a way of interacting with evidence that expresses (aspects of) a unified set of epistemic parameters.

Taking up an epistemic style is a matter of having the dispositions that constitute that epistemic style and setting epistemic parameters accordingly. Epistemic styles are flexible: people can and do shift their style over time and across contexts, by re-setting their epistemic parameters and adopting the corresponding epistemic dispositions.

It will be easier to get a grip on the notion of epistemic style by considering some examples.

Consider, first, the paranoid style, introduced by Richard Hofstadter as a style for “angry minds,” expressive of “heated exaggeration, suspiciousness, and conspiratorial fantasy” (Hofstadter 2012). Interacting with evidence in the paranoid style is a matter of doing so in ways that express that psychological/epistemic profile. In recent work, Rachel Fraser (2020) has further articulated the epistemic parameters expressed in the paranoid style as involving “a coupling of Cartesian paranoia [“refusal to allow that the evidence really guarantees what it appears to show”] with a very unCartesian passionate structure: epistemic fear of missing out, or FOMO” (Fraser 2020), characterized by extreme epistemic risk-seeking.<sup>8</sup>

8. I am not committed to this analysis capturing all cases of the paranoid style. I am just employing this analysis to articulate an example of an epistemic style. The same caveat applies to the two examples below.



A second instructive example is the rationalist style, a way of interacting with evidence that the self-proclaimed rationalist community strives to inculcate and promote. This epistemic style is characterized by adherence to Bayesian reasoning and by a “scout midset” (Galef 2021), rooted in curiosity and willingness to change one’s mind. It also encompasses a tendency to contrarianism and openness to exploring views regardless of the moral costs of doing so. According to critics, it also involves intellectual arrogance, manifested in deep trust of one’s judgments and unwillingness to defer to others (Metz 2021). Rationalism is not just a set of epistemic commitments: it is meant to be inhabited and made manifest in how agents actually interact with evidence. In other words, the ideal rationalist not only endorses the epistemic commitments of the movement, but also adopts the corresponding epistemic style, setting their epistemic parameters so as to be disposed to reason according to Bayes’ theorem, seeking out alternative explanations in a fairly unconstrained way, omnivorously consuming data and statistics, responding to personal testimony with an attitude of skepticism, and so on.

For a third example, consider the epistemic practices discussed by Patricia Hill Collins (2002) as characteristic of Black feminists in the United States. Collins argues that Black feminists typically take “lived experience as a criterion for credibility” (Collins 2002, 258), preferring testimony from people with relevant experiences of oppression over impersonal descriptions and testimony that is conveyed with emotion over coldly expressed points. They are disposed to seek out and value a wide range of distinctive perspectives. And they place a high value on dialogue, as opposed to more combative ways of interacting, with “new knowledge claims...usually developed through dialogues with other members of the community” (Collins 2002, 260). To put it differently, taking up the Black feminist epistemic style involves having dispositions to omnivorously seek out personal narratives from a range of different social positions, to take seriously evidence provided in an emotionally invested way, and to change one’s mind through dialogue.

These are just three examples of epistemic styles. There are many more. Any unified way of interacting with evidence where the unity derives from the expression of epistemic parameter settings is an epistemic style. Epistemic styles are commonplace.

In part, this is because having an epistemic style does not require having reflective epistemic commitments, and one’s style can come apart from whatever reflective epistemic commitments one has. Epistemic style does not express epistemic commitments: it expresses epistemic parameter settings. These parameters include many features that epistemologists have discussed at length. They include: Jamesian preferences for collecting true beliefs versus avoiding false beliefs (James 1979); risk preferences with respect to epistemic goods (Buchak 2013); and weightings of theoretical values (e.g. observational adequacy vs. fit with common sense; Douven 2009, Kelly 2013, Willard-Kyle 2017). They also include evidential policies, which collect the agent’s evidential thresholds for a range of beliefs (Paul and Morton 2018), and trust policies, which set how one allocates epistemic trust in other agents.

I do not mean this list of epistemic parameters to be exhaustive or definitive. The point is that the kinds of aspects of psychology expressed in epistemic style are familiar from epistemology. At the same time, though epistemologists have discussed all of these parameters, they have failed to notice that they cluster into epistemic styles—

such as the paranoid, rationalist, and Black feminist styles.<sup>9</sup> The epistemic behavior of agents who have these styles is not well-understood in terms of isolated epistemic parameters. To get a holistic sense of their behavior, we need to appeal to epistemic styles. Specifically, as I will now show, appealing to epistemic styles to explain ways of interacting with evidence meets all desiderata outlined in §2.

## 4 Answering the Variation Question

I set out to explain systematic differences in ways of interacting with evidence. I argued in §2 that existing explanatory tools do not suffice. We need epistemic styles. My central claims here are the following. When an individual systematically interacts with evidence in different ways when placed in different contexts, this is typically due to a shift in epistemic style. And, when two people interact with evidence in systematically different ways, a difference in epistemic styles is typically part of the explanation.

This account leaves space for isolated epistemic parameters and global character traits to play an explanatory role. Specifically, there are cases in which isolated epistemic parameters explain the way in which an agent interacts with evidence. But, given the kinds of inter-connected patterns of variation we encounter, these will be marginal cases. Similarly, global epistemic character traits explain some patterns of behavior. But, given the sensitivity of our epistemic behavior to situational factors, such traits will be explanatory only in unusual cases.

I will now show that appealing to epistemic styles meets all desiderata I outlined in §2.

### 4.1 Meeting the Desiderata

I will start with the Epistemic Parameters, Multi-Dimensionality, and Context-Dependence Desiderata. This will show that appealing to epistemic styles is well-supported by empirical findings. I will then discuss how the view meets the Predictive Validity and Intelligibility Desiderata, which will illuminate the practical and social benefits of the account.

**Epistemic Parameters Desideratum:** To account for the fact that at least some differences in interactions with evidence are the result of differences in epistemic parameter settings.

Epistemic styles express settings in (unified sets of) epistemic parameters. When differences in interactions with evidence are the result of differences in epistemic style, they are also describable as the result of differences in epistemic parameter settings. For this reason, appealing to epistemic styles satisfies the Epistemic Parameters Desideratum.

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9. I leave open what the source of this clustering is. In some cases, it is internal: plausibly, the epistemic parameter settings of the paranoid style fit together because they all derive from a single psychological trait, e.g. suspiciousness. In other cases, it may be external, coming from social groups coordinating around packages of ways of interacting with evidence, as seems to be the case for the rationalist style.

**Multi-Dimensionality Desideratum:** To account for variations in all dimensions of interacting with evidence, and in multiple epistemic parameters.

Epistemic styles are ways of interacting with evidence, where interacting with evidence covers changing one's beliefs in the light of evidence, gathering evidence, asking questions, considering alternative explanations, and so on. For this reason, appealing to epistemic styles can cover variations in all dimensions of interacting with evidence. Further, epistemic styles express sets of epistemic parameters, not a single parameter. Consequently, appealing to epistemic styles captures variations in multiple epistemic parameters.

**Context-Dependence Desideratum:** To accommodate the systematic dependence of our ways of interacting with evidence on context.

Unlike the global epistemic character traits of virtue epistemological approaches, an agent's epistemic style can change across contexts. For this reason, appealing to epistemic styles can accommodate the context-dependence of our ways of interacting with evidence. As such, it can take into account situationist results (discussed in §2).

Situationism, however, is primarily a negative view. In contrast, I provide a systematic framework in which to think of the role of situational factors, one which leaves space for our cognitive agency. In this framework, the influence of situational factors does not make agents empty vehicles through which context operates. Instead, such factors lead agents to (epistemically) code-switch (Morton 2014). Contextual factors shape and constrain which epistemic style agents take up.<sup>10</sup> And epistemic style expresses *the agent's* epistemic parameter settings in that context. This leaves space for agency in shaping interactions with evidence.<sup>11</sup>

The overall picture of the role of context is a *fragmentationist* one. Fragmentationists about belief hold that different sets of beliefs (fragments) guide action in different contexts, and appeal to this to explain cases of inter-context behavioral inconsistency.<sup>12</sup> Similarly, different epistemic styles are activated in different contexts. This explains differences in epistemic behavior across contexts.

For example, which epistemic style we take up is in general sensitive to that of others around us. As Collins (2002) argues, many of the features of the Black feminist epistemic style are derived from practices of interaction characteristic of Black communities in the United States. Similarly, people often come to develop the paranoid style (from mere tendencies to paranoid reasoning) as the result of immersion in conspiracist communities. And the rationalist style is actively promoted and taught by the rationalist community, through textbooks, workshops, and online community spaces.<sup>13</sup>

10. Such factors can also cause performance mistakes or, more generally, lead agents to act out of style.
11. Developing an account of the agency we have over our epistemic styles is beyond the scope of this paper.
12. See Lewis 1982, Egan 2008 and the essays in Borgoni et al. forthcoming for more on belief fragmentation.
13. The Center for Applied Rationality (<https://www.rationality.org/>) offers workshops, at \$4,900 for four and a half days. And there are a range of online manuals to this style, including Eliezer Yudkowski's *Harry Potter and the Methods of Rationality*, and online spaces committed to this style of reasoning, such as the online forum Less Wrong (<https://www.lesswrong.com/>), "a community blog devoted to refining the art of rationality."

For a second example, consider the effects of mood: a positive mood tends to make us more exploratory, and a negative mood more critical and detail-oriented. This phenomenon is well-captured in terms of a shift in epistemic style. Moods trigger or elicit distinctive epistemic styles: they lead us to re-set epistemic parameters and to adopt corresponding dispositions. Similar remarks apply to the way in which accuracy vs. defensiveness goals constrain how we interact with evidence.

In general, non-epistemic factors affect how we interact with evidence indirectly, by triggering shifts in epistemic style. This leaves open for empirical investigation the elicitation conditions for epistemic styles (i.e. the conditions in which a specific epistemic style is elicited in an agent).<sup>14</sup>

The fact that appealing to epistemic styles meets the Epistemic Parameters, Multi-Dimensionality, and Context-Dependence desiderata shows that appealing to epistemic styles is well-suited to describe our interactions with evidence. This makes it unsurprising that appeal to epistemic styles helps us predict how agents will interact with evidence:

**Predictive Validity Desideratum:** To put us in a position to predict how others will interact with a range of evidence, if we have relevant information.

Knowing someone's style, in general, helps us predict their (style-related) behavior: it helps us predict how they will dress, speak, react to others, and so on, in contexts in which they have that style. Similarly, knowing someone's epistemic style helps you predict how they will interact with evidence. Knowing someone's epistemic style involves knowing how they are disposed to interact with evidence in a context: which evidence they are disposed to take seriously, which evidence is likely to change their minds, which circumstances are likely to elicit evidence-gathering behavior, and so on. If we know someone's epistemic style in a context and their relevant beliefs, we are well-equipped to predict how they will respond to evidence in that context. For this reason, the Epistemic Styles View meets the Predictive Validity Desideratum.

Such predictions are not infallible. Styles are usually compatible with multiple responses to evidence. And dispositions are not always manifested in their elicitation conditions. They can be masked (Johnston 1992, Bird 1998): much like a fragile glass might fail to break when struck because it is carefully wrapped, a person with a paranoid epistemic style might fail to come up with a conspiratorial explanation for the evidence because they are too tired.

The fact that the view meets the Predictive Validity Desideratum is practically significant. It provides tools for (at least partially) addressing the difficulties in rational persuasion and joint deliberation I mentioned in §2. You can canvass your knowledge of epistemic style to select evidence that your interlocutor will find persuasive, to figure out how much evidence to offer, and to anticipate and pre-empt objections to your arguments that they are likely to bring up.

For example, if you are trying to persuade someone who interacts with evidence in the paranoid style, you should expect them to find conspiratorial explanations highly

14. One upshot of my picture is that fragmentationists about belief need an additional variable in their theory: not just which beliefs are active, but also which epistemic style is at play.

salient, to strongly prefer evidence from more informal sources than from the mainstream media, and to set high evidential thresholds for changing their mind across the board. Armed with this knowledge, you can select more persuasive evidence to offer, anticipate alternative explanations for that evidence, and persevere in a way that is sensitive to their high evidential thresholds. Alternatively, you might decide to pass on seriously engaging until you are in a context where they will take up a more receptive epistemic style.

Knowledge of epistemic style makes a distinctive contribution here. If your interlocutor, despite having the same beliefs on the topic at hand, adopted the rationalist style, you would want to offer evidence from academic sources, expect them to reason carefully through probabilistic evidence and to be open to alternative explanations that may have morally dubious implications, and so on. To be persuasive, you would be well-advised to carve out very different engagement strategies in the two cases.<sup>15</sup>

This leaves one final desideratum to address:

**Understanding Desideratum:** To put us in a position to understand interactions with evidence.

Understanding comes in different kinds and degrees (Grimm 2016). My discussion below cannot do justice to all varieties of understanding. That said, I will try to make the case that knowledge of epistemic style contributes to a range of important kinds of understanding.

One kind of understanding—the kind of understanding characteristic of the natural sciences—consists (roughly) in intellectually grasping a causal model of the elements which lie behind the target’s behavior, in a way that allows for good predictions (Kitcher 1989). Knowing an agent’s epistemic style in a context is a matter of knowing how they are disposed to interact with evidence. In itself, knowledge of dispositions does not yield knowledge of the cognitive basis of these dispositions. But epistemic styles express epistemic parameter settings. If one also comes to have a sense for these parameter settings, one comes to this kind of understanding of how an agent interacts with evidence.

There is good reason to think that knowing someone’s style puts one in a position to determine what the background epistemic parameter settings are. As McGeer (2007) puts it, we are “inveterate mentalizers” (McGeer 2007, 137), finding it natural to understand all sorts of behavior in psychological terms. Our knowledge of an agent’s style tends to be accompanied by a sense of the psychological features that those surface dispositions express. For this reason, knowledge of style typically puts us in a position to achieve naturalistic understanding of others.

We often want to understand others in ways that go beyond such naturalist understanding. We want to understand others *as agents* who act for reasons, whose

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15. Of course, epistemic style is only one factor among many that contribute to successful persuasion. For example, effective engagement will require attention to how evidence is presented (Tversky and Kahneman 1981), not only to which evidence one presents. Further, I leave open important ethical questions: how do we employ knowledge of epistemic style in respectful, non-manipulative ways? What are moral constraints on using our knowledge of others’ epistemic style? My discussion here serves as a prolegomenon to such questions. To address them, we first need to bring epistemic styles into clear focus.

behavior is rationally intelligible (in some sense). As Grimm (2016) notes, such understanding requires seeing others not (merely) as causal mechanisms. Such understanding is holistic. As Iris Murdoch put it, when we understand other people,

we do not consider only their solutions to specifiable practical problems, we consider something elusive which may be called their total vision of life... in short, the configurations of their thought which show continually in their reactions and conversation (Murdoch 1956, 39).

Knowing others' epistemic styles can make a distinctive contribution to understanding them in this rich humanistic sense. It involves having a sense of "the configurations of their thought" which show in their interactions with evidence: the epistemic parameter settings that are expressed in how they interact with evidence. In virtue of knowing someone's epistemic style, we come to understand them *qua* epistemic agents who (in that context, on that topic) live by certain epistemic values.<sup>16</sup>

This is a significant result. Grasp of epistemic style can rescue us from seeing others as profoundly irrational, specifically, as agents whose epistemic behavior is purely determined by irrelevant factors (such as strong emotions, partisan affiliations, or vicious motivation). Such factors can and do play a role in how people interact with evidence: but they do so by reshaping their epistemic parameter settings. And, crucially, we can make genuine sense of their epistemic behavior in light of such settings.

Note that, on this view, one can make genuine sense of others' epistemic behavior without viewing them as epistemically rational. This goes against views that postulate a constitutive connection between folk-psychological intelligibility and epistemic rationality (Davidson 1973). On my view, we can see how a pattern of behavior makes sense in the light of a set of epistemic parameters while thinking that setting one's epistemic parameters in those ways (in some, perhaps actual, contexts) leads to irrational interactions with evidence. Knowledge of epistemic style enables us to make rational sense of epistemic behavior in light of specific parameter settings. But this need not involve claiming that such behavior is rational.

The kind of understanding of others that I have discussed so far is distanced and third-personal. It involves making sense of others' responses to evidence intellectually, by seeing how they express an epistemic profile. There are, however, more involved or empathetic kinds of understanding of others that one may want to attain. We may want to get others' parameter settings "from the inside" by simulating them (Goldman 2006, Maibom 2007) or to be able to see those parameter settings as good or choiceworthy (Grimm 2016).

Such kinds of understanding appear especially socially and politically valuable, by reducing disdain for others and helping resolve deep conflicts (Hannon 2020). These benefits are particularly significant in political deliberation, which requires tolerance, mutual respect, and openness towards others. Empathetic understanding can function as an antidote to the kind of polarization (Benkler et al. 2018) that often dominates

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16. They may have long-standing values which are not manifested in the style they take up. Knowledge of style will not help us make sense of their behavior by reference to *those* values. That is the right result when those values are not in fact expressed in behavior.

political contexts, and thereby enable people to have better conversations and reap the benefits of collective deliberation.

Merely knowing someone's epistemic style does not suffice for empathetic understanding. Achieving empathetic understanding requires additional imaginative and perspectival work. Crucially, however, knowing someone's epistemic style is an important ingredient for this work. We need to have a sense for how others have set their epistemic parameters if we are to simulate them or come to see them as choiceworthy from some perspective.

All things considered, appealing to epistemic styles meets the Understanding Desideratum. Knowing someone's epistemic style puts us in a position to begin to understand the causal structure behind their interactions with evidence; it helps us make sense of agents' interactions with evidence at a personal level; and it provides us with knowledge which we can canvass to arrive at empathetic understanding.<sup>17</sup>

## 5 Upshots of Epistemic Styles for Epistemology

I have argued that epistemic styles make a crucial contribution to how real-world epistemic agents interact with evidence. Insofar as epistemologists are interested in providing tools for assessing real-world epistemic agents, they have good reason to be interested in epistemic styles.

In criticizing virtue epistemology, situationists press a similar point about the importance of attending to how agents actually interact with evidence (Fairweather and Alfano 2017). I go beyond the situationist critique in providing a new object for epistemic assessment: epistemic styles. I have argued that individuals take up epistemic styles, and that such styles are behind our interactions with evidence. If this is right, then we can begin to build a more applicable theory of epistemic assessment that improves on virtue epistemology by focusing on assessing epistemic styles instead of global character traits.<sup>18</sup> At a practical level, we should re-allocate our attention from thinking about how to promote epistemic virtues to thinking about how to inculcate good epistemic styles.

Similarly, my discussion suggests that we need to expand our discussions of moral and pragmatic encroachment. Such discussions tend to focus on how individuals ought to shift isolated epistemic parameters—their evidential thresholds or spheres of relevant alternatives—in the light of moral or practical factors.<sup>19</sup> But moral and pragmatic factors do not only affect how individuals set evidential thresholds or spheres of relevant alternatives. They lead individuals to *shift epistemic styles*, adjusting a wide range of epistemic parameters and behavior. To provide norms on encroachment, we need to assess shifts in epistemic style, not only in isolated epistemic parameters.

17. Much like the discussion of rational engagement above, this discussion of the understanding-related benefits of sensitivity to epistemic style is only preliminary. When and to what extent understanding has these benefits is a difficult empirical question.

18. See Lasonen-Aarnio (forthcoming) for an account of how to epistemically assess dispositions that is relevant here, given that styles package dispositions.

19. See Bolinger (2020) for an overview of different kinds of encroachment proposed in the literature. Detailed discussion of all versions of the encroachment view is beyond the scope of this paper.



Further, a theory of the epistemic assessment of epistemic styles may help us assess epistemic conduct in cases of deep disagreement.<sup>20</sup> An intriguing hypothesis is that such disagreement is (at least in some cases) sustained by differences in epistemic style. Where that is the case, assessing agents' conduct will involve assessing their epistemic styles and addressing questions about when one ought to change one's epistemic style.

At the level of communal disagreement, epistemic styles might help us theorize about epistemic bubbles and echo chambers (informational structures that omit or actively exclude relevant information, respectively; see [Nguyen 2020a](#)). Perhaps some such informational structures are partly sustained by divergences in epistemic style at a community-level. If that is right, then dissolving these structures might require community-level shifts in epistemic style. Theorists interested in these phenomena should think through when shifts in epistemic style are appropriate and what are good means to bring them about.

Finally, appeal to epistemic styles may also help us understand when and why different ways of knowing ([Belenky et al. 1986](#), [Collins 2002](#), [Gilligan 1993](#), [Rooney 1991](#)) are valuable. Their value might in part be explainable in terms of the value of different epistemic styles. One important benefit of this approach is that it avoids essentialism about modes of epistemic engagement, that is, seeing such modes of engagement as innate or essential to members of certain social groups. Epistemic styles are packages of dispositions that one can take up and abandon, not innate or immutable traits of individuals. For this reason, the claim that marginalized social groups have characteristic epistemic styles is non-essentializing, leaving space to recognize the role of social factors in the construction and adoption of epistemic styles.

## 6 Conclusion

Why do we find diversity in how people interact with evidence? To address this question, I introduced and developed the notion of epistemic styles: unified ways of interacting with evidence that express (settings of) epistemic parameters which agents can flexibly take up. I argued that appealing to differences in epistemic style best accounts for cases of systematic variation in interactions with evidence.

Though I introduced the notion of epistemic style to address a descriptive question—what explains people's distinctive ways of interacting with evidence—the notion can be exploited to reshape our normative theorizing. It can help us think through important questions in epistemology—for example, about disagreement, cognitive diversity, and echo chambers. Further, epistemic styles provide a framework within which to theorize about epistemic assessment.

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20. See [Frances and Matheson 2019](#) for an overview.

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